

WHAT IS CLAIMED IS:

1. A plane unit structure for fastening a rectangular plane unit to a housing at three position; left and right side edges and an upper central edge; 5 wherein side fixing members are fixed to left and right edge surfaces of the plane unit with screws, and wherein the side fixing members are fixed to the housing with screws and the upper central edge of the plane unit is fastened to the housing while being sandwiched between 10 back and front surfaces thereof.

2. A plane unit structure as defined by claim 1, wherein the back surface of the upper central edge of the plane unit is brought into contact with sheets fixed to the housing, and the front surface thereof is brought 15 into contact with claws of the upper center fixing member fixed to the housing, so that the upper central edge is fixed between the both in a sandwiched manner.

3. A plane unit structure as defined by claim 2, wherein the sheet is formed of an elastic member.

20 4. A plane unit structure as defined by claim 2, wherein the upper center fixing member is provided with a hook portion of a portable type computer comprising a main body and a display having a plane unit openable/clocable relative to the main body so that when 25 the display is closed relative to the main body, the display is engaged with the main body by the engagement of the hook portion in the display with an engagement portion in the main body.

30 5. A plane unit structure as defined by claim 3, wherein the hook portion has an opening formed in the upper center fixing member, and the display is engaged with the main body by the engagement of the opening with a claw portion defining the engagement portion in the main body.

35 6. A plane unit structure as defined by claim 2, wherein the upper center fixing member has fixing holes at two positions apart from each other in the direction

parallel to the upper edge of the plane unit and fixed to the housing with screws through the fixing holes.

5        7. A plane unit structure as defined by claim 6, wherein the claws are provided at two positions apart from each other in the direction parallel to the upper edge of the plane unit, and the hook portion is formed between the two claws.

10        8. A plane unit structure as defined by claim 6, wherein the sheets are provided at two positions opposite to the two claws, respectively.

15        9. A plane unit structure as defined by claim 1, wherein the side fixing member is an L-shaped member comprising a strip portion extending along each of left and right edge surfaces of the plane unit and a flat proximal end portion which is part of the strip portion exceeding the lower end of each of the left and right edge surfaces and bending from the strip portion at a right angle.

20        10. A plane unit structure as defined by claim 1, wherein the strip portion of the side fixing member is fixed to each of the left and right edge surfaces with screws at a plurality of positions along each of the left and right edge surface, and the flat portion is fixed to the housing with a screw at one position.

25        11. A plane unit structure as defined by claim 9, wherein the side fixing member is made of metal having the elasticity.

30        12. A plane unit structure as defined by claim 11, wherein a distal end portion of the side fixing member opposite to the proximal end portion is apart from each of the left and right edge surfaces of the plane unit and brought into elastic contact with an inner wall surface of the housing.

35        13. A plane unit structure as defined by claim 9, wherein a shock absorbing member is provided between the strip portion of the side fixing member and the inner wall of the housing.

14. A plane unit structure as defined by claim 13, wherein the shock absorbing member is made of metal having the elasticity.

5 15. A portable type computer comprising a main body and a display which is a plane unit openable/closable relative to the main body, wherein

10 the display comprises a housing and a rectangular plane unit, and side fixing members are fixed to left and right edge surfaces of the plane unit, respectively, with screws, and wherein the side fixing members are fixed to the housing with screws and an upper central edge of the plane unit is fixed to the housing while front and back surfaces thereof are sandwiched.

15 16. A portable type computer as defined by claim 15, wherein the display is provided with a frame-like front cover mounted along the outer periphery of the rectangular plane unit to sandwich the plane unit between the front cover and the housing.

20 17. A portable type computer as defined by claim 15, wherein a plurality of ribs are provided integral with the plane unit between the upper edge surface of the plane unit and the inner wall surface of the housing along the upper surface of the plane unit.

25 18. A plane unit structure for fixing a rectangular plane unit while sandwiching opposite surfaces thereof in the thickness direction between a front cover and a back cover, wherein fittings are attached to side surfaces of the plane unit with screws and cushion members are brought into contact with the fittings so that the upper and lower surfaces or the left and right side surfaces of the plane unit are fixed to the cover via the cushion members.

35 19. A plane unit structure as defined by claim 18, wherein two of the fittings are attached to the left and right side surfaces of the plane unit, respectively.

20. A plane unit structure as defined by claim 19, wherein the fitting is formed of a strip having a width

approximately equal to a thickness of the plane unit, which strip has a pair of bending portions at opposite ends thereof bent to be in contact with the upper or lower surface of the plane unit.

5        21. A plane unit structure as defined by claim 20, wherein two of the cushion members are adhered to the fitting fixed to the side surface of the plane unit at positions in the vicinity of opposite ends of the fitting in the lengthwise direction thereof, and further two of  
10      the cushion members are disposed at positions outside of the pair of bending positions.

15        22. A plane unit structure as defined by claim 21, wherein the fitting the fitting is fixed to the side surface of the plane unit with screws at two positions in the vicinity of lengthwise ends thereof, and the cushion members are adhered to the fitting at an end position closer to the screw-fixed position.

20        23. A plane unit structure as defined by claim 19, wherein the fitting has second bending portions at positions on one side in the widthwise direction bent away from the plane unit, and wherein these second bending portions are provided at opposite ends except for a central area in the lengthwise direction of the fitting, to be brought into contact with ribs provided in  
25      the front cover when the plane unit is sandwiched between the front and back covers.

30        24. A plane unit structure as defined by claim 18, wherein a pair of hinge arms are fixed to left and right sides of the front cover with screws, and the cushion members are interposed between the fitting fixed to the side surface of the plane unit and hinge arm.

35        25. A plane unit structure as defined by claim 24, wherein the hinge arm is fixed to a standing-up wall provided along the periphery of the rectangular frame-like front cover at front and back two positions with screws.

26. A portable type computer comprising a main body

and a display provided with a plane unit  
openable/closable relative to the main body; the display  
comprising a rectangular plane unit, opposite surfaces of  
which are sandwiched between front and back covers as  
5 seen in the thickness direction, wherein

10 fittings are attached to side surfaces of  
the plane unit, and cushion members are provided to be in  
contact with the fittings so that the upper or lower  
surface or the left or right surface of the plane unit is  
fixed to the cover.

15 27. A portable type computer as defined by claim  
26, wherein a pair of hinge arms are fixed to left and  
right sides of the front cover with screws, and the  
cushion member is interposed between the fitting fixed on  
the side surface of the plane unit and the hinge arm, and  
wherein a proximal end portion of the hinge is fixed to  
the main body of the apparatus so that the display is  
openable/closable relative to the main body of the  
display.

20 28. A portable type computer as defined by claim  
26, wherein a pair of hinges are provided on opposite  
sides of the plane display unit, and each of the hinges  
is fixed to the main body with a screw on one hand, and  
to the front or back cover on the other hand, so that the  
25 plane display unit is openable/closable relative to the  
main body.